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PCT/DE2002/004762

translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference TAK237WO	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/DE2002/004762	International filing date (day/month/year) 23 December 2002 (23.12.2002)	Priority date (day/month/year) 04 January 2002 (04.01.2002)
International Patent Classification (IPC) or national classification and IPC B60R 21/20		
Applicant	TAKATA-PETRI (ULM) GMBH	

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 6 sheets.

3. This report contains indications relating to the following items:

- I Basis of the report
- II Priority
- III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV Lack of unity of invention
- V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI Certain documents cited
- VII Certain defects in the international application
- VIII Certain observations on the international application

Date of submission of the demand 04 August 2003 (04.08.2003)	Date of completion of this report 14 June 2004 (14.06.2004)
Name and mailing address of the IPEA/EP Facsimile No.	Authorized officer Telephone No.

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International application No.

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I. Basis of the report

1. With regard to the elements of the international application:*

- the international application as originally filed
 the description:

pages _____ 1-13 _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____

- the claims:

pages _____, as originally filed
 pages _____, as amended (together with any statement under Article 19)
 pages _____, filed with the demand
 pages _____ 1-39 _____, filed with the letter of 08 June 2004 (08.06.2004)

- the drawings:

pages _____ 1-7 _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____

- the sequence listing part of the description:

pages _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
 the language of publication of the international application (under Rule 48.3(b)).
 the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- contained in the international application in written form.
 filed together with the international application in computer readable form.
 furnished subsequently to this Authority in written form.
 furnished subsequently to this Authority in computer readable form.
 The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
 The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- the description, pages _____
 the claims, Nos. _____
 the drawings, sheets/fig. _____

5. This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

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V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1 - 39	YES
	Claims		NO
Inventive step (IS)	Claims	1 - 39	YES
	Claims		NO
Industrial applicability (IA)	Claims	1 - 39	YES
	Claims		NO

2. Citations and explanations

1. Claim 1 meets the requirements of PCT Article 33(2), (3) and (4), since the subject matter of the claim is novel, involves an inventive step and is industrially applicable.

1.1 Document EP 0 790 154 A (D5) (see figures 8 and 9; column 8, line 29 to column 9, line 22 and column 9, lines 37 to 41) is considered the prior art closest to the subject matter of claim 1 and discloses (the references between parentheses refer to that document) :

"gas flow distributor 10d for a side airbag module (see column 1, lines 14 to 18), for the controlled distribution of a gas flow exiting the outflow openings of a gas generator into an airbag to be inflated by the gas generator 40d, the gas flow distributor 10d being formed by a dimensionally stable receiver 336 which surrounds the gas generator 40d at least in the region of the outflow openings 208d and at least one part of the receiver being configured as a baffle element (the part with the holes), at least one gas conduit for feeding the gas flow

running between the baffle element and the gas generator, the baffle element being arranged such that the gas flow, upon hitting the baffle element, is deflected along the lateral surface of the gas flow distributor 10d, the gas flow, upon hitting the baffle element, being divided into (at least) two gas flows which flow into opposite-lying gas exit regions and escape along a tubular axis of the gas generator 40d".

The subject matter of claim 1 thus differs from the known gas flow distributor in that:

"the opposite-lying gas exit regions are the only gas exit regions""

In D1 the holes actually form a "third gas exit region".

The subject matter of claim 1 is thus novel (PCT Article 33(2)).

- 1.2 The above difference results in better controlled conduction and distribution of the gas flow, which can be fed into one or more chambers of a multi-chamber air bag or into a plurality of air bags (see page 5, lines 1 to 17 of the application).

The present invention can therefore be considered to address the problem of achieving the controlled inflation of a plurality of chambers using the known gas flow distributor.

Although the arrangement of the gas flow distributor in D1 effects a certain distribution of the gas flow in three directions (two opposite and one

perpendicular through the openings), it mainly plays the role of a diffuser and for a single chamber. Thus, proceeding from the problem of interest, a person skilled in the art would not omit the openings or holes in the gas flow distributor as per D1 without thereby being inventive.

Document DE 198 50 448 A (D4) addresses the problem of inflating two air bags using a gas generator. Figures 3 and 4 show one embodiment in which the four outflow channels 37, 38 may be regarded as baffle elements, but merely deflect and do not distribute the gas flow. The distribution takes place in the actual gas generator 2. Figure 5 shows a different embodiment in which the wall furthest away from the gas generator could be regarded as a baffle element. Although it does not have any openings or holes, it does not accommodate the gas generator. The structures in D4 differ from those of D5 to such an extent that a person skilled in the art would not combine these two documents without thereby being inventive.

Consequently, the solution to the problem of interest proposed in claim 1 of the present application involves an inventive step (PCT Article 33(3)).

- 1.3 Claim 1 is directed to a gas flow distributor for an airbag module for use in motor vehicles. The subject matter of the claim is therefore undoubtedly industrially applicable.
2. Claims 2 to 39 are dependent on claim 1 and therefore likewise meet the PCT requirements for

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novelty and inventive step.